Application No. 09/849,144
Attorney Docket No. 11685US03

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the

application:

LISTING OF CLAIMS

Claims 1-11. (Cancelled)

12.   (Currently Amended) A method for managing a communication system,

comprising:

connecting each line card in a group of line cards to a spare line card local port of

a spare line card in the group of line cards; and

upon detection of a failed line card in the group of line cards, rerouting an I/O

input and output port of the failed line card through a local port of the failed line card,

without completely bypassing said line card, to its spare line card local port, then to a

spare line card link port.

13.   (Original)   The method of claim 12, wherein the group of line cards includes

an integer number k of non-spare line cards, and wherein the spare line card includes at

least k spare line card local ports.

14.   (Currently Amended) The method of claim 12, wherein rerouting comprises

switching the I/O input and output port of the failed line card through the local port of the

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failed line card to its spare line card local port, then switching the spare line card local

port to the spare line card link port.

15.   (Currently Amended) A communication sub-system, comprising:

a spare line card having a plurality of spare line card local ports, a spare line card

link port, and a first switch for connecting the spare line card link port to one of the spare

line card local ports; and

a plurality of non-spare line cards, each of the plurality of non-spare line cards

having an I/O input and output port, a local port connected to one of the plurality of spare

line card local ports, and a second switch for rerouting the I/O input and output port

through the local port to the spare line card local port, without completely bypassing said

line card, upon determination of a failure.

16.   (Original)   The communication sub-system of claim 15, wherein the plurality

of line cards includes an integer number k of line cards, and wherein the spare line card

includes at least k spare line card local ports.

17.   (Original)   The communication sub-system of claim 16, wherein the first

switch is at least a 1 x (k +1) switch.

18.   (Currently Amended) A method for managing a communication system, said

method including:

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providing a group of a plurality of line cards, each of said line cards communicating data through an I/O input and output port and communicating data through a link port, wherein each of said line cards is capable of internally communicating data from said I/O input and output port to said link port;

providing at least one spare line card having a spare line card I/O input and output port and a spare line card link port;

connecting said line cards in said group of line cards to said spare line card; and

in the event that the link port of one of said line cards of said group of line cards fails rending said line card a link port failed line card, rerouting data received by said link port failed line card through the I/O input and output port of said link port failed line card to said spare line card to provide communication through said link port failed line card between said I/O input and output port of said link port failed line card and said spare line card link port of said spare line card.

19.   (Currently Amended) A communication system, said system including:

a group of a plurality of line cards, each of said line cards capable of data communications through an I/O input and output port and through a link port, wherein each of said line cards is further capable of internal data communications between said I/O input and output port and said link port; and

at least one spare line card having a spare line card I/O input and output port and a spare line card link port, said at least one spare line card connected to less than all of said

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line cards in said group of line cards, said at least one spare line card capable of data

communications through said I/O input and output port and said link port,

a controller, in the event that the link port of one of said line cards of said group

of line cards fails rending said line card a link port failed line card, said controller

rerouting data received by said link port failed line card through the I/O input and output

port of said link port failed line card to said spare line card to provide communication

through said link port failed line card between said I/O input and output port of said link

port failed line card and said spare line card link port of said spare line card.

20.   (Currently Amended) A line card comprising:

an I/O input and output port supporting passage of I/O input and output port data;

a link port supporting passage of link port data; and

a first local port, wherein said local port may be configured to pass both either

said I/O input and output port data and said link port data; and

a second local port, wherein said local port may also be configured to pass either

said input and output port data and said link port data.

21.   (Currently Amended) The line card of claim 20 wherein said link port is

connected to a multiplexer[[/]] or demultiplexer that multiplexes signals onto said

transmission medium and demultiplexes signals from said transmission medium.

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22.   (Currently Amended) The line card of claim 21 wherein said multiplexer [[/]] or

demultiplexer is external to said line card.

23.   (Canceled)

24.   (Previously Presented) The line card of claim 20 further comprising an input for

receiving signals from a controller.

25.   (Currently Amended) The line card of claim 20 wherein said I/O input and output

port data is routed to said link port when there is no indication of a line card failure.

26.   (Currently Amended) The line card of claim 20 wherein said link port data is

routed to said I/O input and output port when there is no indication of a line card failure.

27.   (Currently Amended) The line card of claim 20 wherein said I/O input and output

port data is routed to at least one of said one or more local ports upon an indication of a

line card failure.

28.   (Previously Presented) The line card of claim 20 wherein said link port data is

routed to at least one of said one or more local ports upon an indication of a line card

failure.

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29.   (Currently Amended) A line card comprising:

an I/O input and output port supporting passage of I/O input and output port data;

a link port supporting passage of link port data; and

a first local port, wherein said line card includes a first connection allowing I/O input and output port data to be routed to said first local port when said first connection is actuated,

wherein said line card includes a second connection allowing link port data to be routed to said first local port when said second connection is actuated; and

a second local port, wherein said line card includes a third connection allowing I/O input and output port data to be routed to said second local port when said third connection is actuated,

wherein said line card includes a fourth connection allowing link port data to be routed to said second local port when said fourth connection is actuated.

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